

CLIMATOLOGICAL DATA FOR MAY, 1912.

DISTRICT No. 7, LOWER MISSISSIPPI VALLEY.

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GENERAL SUMMARY.

Monthly mean temperatures were above the normal over the district, except that they were considerably below normal in the New Mexico area; and there was a slight deficiency in extreme northwestern Louisiana, southern Arkansas, and the southern portion of the Mississippi area. The greatest excess occurred in Oklahoma and in the Kansas area. The deficiency was greatest in the New Mexico area. In Oklahoma and the Kansas area the precipitation was insufficient, but elsewhere over the district showers were timely, except that in the Colorado and New Mexico areas the precipitation occurred during the first half of the month, and there was practically no precipitation after the 17th. In Louisiana unusually heavy rains fell during the first decade of the month and materially interfered with outdoor work. Destructive tornadoes occurred in the central portion of the Kansas area on the 3d and in Oklahoma on the 27th.

Large areas in Arkansas and Louisiana, adjacent to the Mississippi River, were covered during the entire month by flood waters from numerous crevasses in the levee system of that river.

The following table summarizes the chief features of meteorological interest in the various portions of the district:

States and portions of States lying within District No. 7.	Mean temperature.	Departure from normal.	Mean precipitation.	Departure from normal.	Greatest precipitation in 24 hours.	Number of days—			Prevailing wind direction.	
						Mean snowfall.	With 0.01 inch or more.	Clear.		
Colorado.....	52.1	-0.3	1.91	-0.28	1.21	14.0	6	16	9	6 SW.
New Mexico.....	58.3	-1.3	2.23	+0.60	2.19	6.6	5	17	10	4 SW.
Texas.....	69.4	+2.1	1.91	-2.70	3.26	0.0	5	19	7	5 S.
Kansas.....	67.2	+2.5	3.45	-0.55	3.18	0.0	7	18	9	4 S.
Oklahoma.....	70.9	+3.6	2.95	-2.59	2.65	2.0	6	21	6	4 S.
Missouri.....	67.7	+2.0	3.78	-1.27	2.95	0.0	7	18	8	5 S.
Tennessee.....	69.3	+0.8	3.31	-0.92	1.90	0.0	8	17	7	5 SW.
Arkansas.....	69.9	+0.6	2.41	-3.21	3.33	0.0	6	15	11	6 S.
Mississippi.....	71.8	0.0	4.07	+0.01	5.25	0.0	7	18	7	6 S.
Louisiana.....	74.2	+0.5	6.98	+3.28	6.94	0.0	7	16	7	8 S.

TEMPERATURE.

Temperature conditions were seasonable during the first decade, except that in the Colorado and New Mexico areas minimum readings were lower than usual for May. During the second decade moderate temperatures prevailed, followed by a period of warm weather, which continued until the close of the month. Maximum temperatures above 95° were reported from each State in the district, the highest temperature, 103°, occurring at Clarendon, Tex., on the 27th. The highest temperatures occurred, as a rule, during the last decade of the month. The lowest temperature, 5°, was recorded at Elizabethtown, N. Mex., on the 15th. Temperatures of freezing,

or below, occurred at every station in the Colorado area and at most stations in the New Mexico area; temperatures of 32°, or slightly lower, were recorded at many stations in Oklahoma and the Kansas area. The minimum temperatures occurred between the 13th and 19th, except in the Kansas area.

PRECIPITATION BY DRAINAGE AREAS.

Arkansas River and tributaries.—Except in New Mexico, eastern Kansas, and at a few stations in the most elevated portions of Colorado, the precipitation was deficient in this drainage area. Over the headwaters of the Arkansas River, in Colorado, the average from 36 stations was 1.91 inches, about 0.2 inch below the normal amount. Over those portions of the Arkansas Valley proper that lie in Kansas and Oklahoma the average from 46 stations was 3.46 inches, about 0.9 inch below the normal. The average from 26 stations in that part of the Canadian Valley that lies in New Mexico was 2.15 inches, about 0.6 inch above the normal. The precipitation was lighter over those portions of the Canadian Valley that lie in Texas and Oklahoma, where the amounts from 30 stations averaged 2.68 inches, about 2.9 inches below the normal. In the Cimarron Valley the average from 22 stations was 2.26 inches, about 1.5 inches below the normal. In the Verdigris Valley the average was 4.96 inches, about 0.2 inch below the normal, and in the Neosho Valley the average was 4.06 inches, about 1.5 inches below the normal. Below the Oklahoma-Arkansas line the average from 15 stations in the Arkansas Valley was 1.99 inches, about 3.5 inches below the normal.

Red River and tributaries.—The precipitation was light over the upper reaches of this drainage area. Over those portions of the Red River Valley that lie in New Mexico, Texas, and Oklahoma, the average from 43 stations was 2 inches, about 3 inches below the normal. Below the Texas-Arkansas line, the average from 20 stations was 4.74 inches, about 0.9 inch above the normal.

Mississippi River south of St. Louis and small tributaries.—Less than the normal precipitation occurred over this drainage area, except in the Valley of the Big Black and in a few other scattered localities. In the immediate Mississippi Valley the average from 39 stations was 3.62 inches, about 0.8 inch below the normal. The average from 23 stations in the Valley of the White was 2.30 inches, about 2.8 inches below the normal. Over the Yazoo Valley, the average from 23 stations was 3.91 inches, about 0.1 inch below the normal. The average precipitation over the Valley of the Big Black was 4.76 inches, about 0.4 inch above the normal. The amounts from 19 stations in the Ouachita Valley averaged 3.31 inches, about 1.9 inches below the normal.

Louisiana coastal plain.—Heavy precipitation occurred generally over this area, the average from 32 stations being 8.17 inches, about 4.2 inches above the normal.

SNOWFALL.

Snow occurred generally over the New Mexico area, and in the Colorado area to the west of the 104th meridian. In the Colorado area the average was 14 inches, and in the New Mexico area, 6.6 inches.

RIVERS.

Low water prevailed in the upper reaches of the Arkansas River proper during the month, but flood stages occurred in some of the tributaries in Kansas and Oklahoma. Corn and wheat crops in the lowlands along the Neosho River in Kansas were overflowed, in some localities killing the wheat and necessitating the replanting of corn, or abandoning the crop for the present year. Flood stages were reached in the lower Arkansas River in the early part of May, but no damage was reported.

High stages occurred in the lower White River during the first decade.

No flood occurred in the Red River, and, except for a few slight rises, the river fell during the month.

The Ouachita River was above flood stage at Monroe throughout the month, with the highest stage, 45.5 feet, on the 14th to 16th, inclusive.

The Mississippi River below St. Louis fell generally after the 11th. The highest stages, in feet, recorded during the month, were as follows: Memphis, 38.9, on the 10th; Helena, 50.6, on the 1st; Arkansas City, 51.9, on the 1st; Vicksburg, 48.4, on the 7th; Natchez, 51, on the 11th; Baton Rouge, 43.8, on the 11th and 13th; Donaldsonville, 34.8, on the 11th; and New Orleans, 21.5, on the 11th and 13th (22 feet at 2 a. m. of the 11th). Below Vicksburg, these were the highest stages ever recorded, and verified the prediction of the Weather Bureau issued April 4, 1912.

TORNADOES.

Tornadoes in Kansas, May 3, 1912.—Several tornadoes occurred in the Arkansas Valley on this date. About 4 p. m., a tornado passed over Offerle, in Edwards County, moving from the southeast toward the northwest. Seven persons were injured and about \$10,000 worth of property destroyed. Twelve tornadoes occurred in Pawnee County, one of which was destructive. About 6.50 p. m., a tornado passed over Larned, moving from the southeast toward the northwest. Two persons were injured and the damage to property in the town amounted to \$40,000. A tornado also occurred in Barton County, appearing on the farm of Mr. Mansolf, about 7.30 p. m. All the buildings on the farm were destroyed, and a man was carried 75 yards and dropped in an alfalfa meadow, breaking both bones in his right leg below the knee.

Tornadoes in Oklahoma, May 27, 1912.—A tornado occurred in Kay County, a few miles north of Blackwell about 5.20 p. m. The storm moved from west to east and had the pendant, funnel-shaped cloud. One person

was killed and the property loss was estimated at \$10,000. At 5.30 p. m., a severe local storm occurred at Newkirk, Kay County, killing one person and damaging property to the amount of \$3,000, most of which was caused by hail, which broke plate glass. A well-developed tornado passed over Skiatook, Tulsa County, about 8.30 p. m., moving from the northwest to the southeast. The pendant, funnel-shaped cloud was present, and the path of greatest destruction was about 200 yards wide. Skiatook is about 80 miles southeast of Blackwell, and it is not probable that this was the same storm which passed over the latter place earlier in the afternoon.

UNUSUAL HAILSTORM, WICHITA, KANS.

[By RICHARD H. SULLIVAN, local forecaster.]

The weather became threatening in the western horizon about 3.30 p. m. May 24, 1912, and thunder was first heard at 4.44 p. m., becoming very heavy at short intervals between 5 and 6 p. m., with a remarkable display of lightning. Fitful showers occurred at times, and hail began falling with rain at 4.55 p. m. In the southern and western parts of the city the hailstones ranged in size from that of peas to small marbles; in the northern and eastern sections the sizes ranged from that of peas to dimensions larger than a large hen-egg. One stone, slightly oval, found by the official in charge in his back yard at Fairmount, measured 3 inches in diameter and was 2 inches thick; its longitudinal circumference was 9.5 inches. This is the largest hailstone that I have seen during 24 years of observations, and is comparable only with one found by the writer during the great hailstorm of September 6, 1911, which measured 9.25 inches in circumference. Another one, perfectly round, was 2 inches in diameter. Three of the largest stones found, when melted made 5.5 ounces of water. This class of hailstones was composed almost wholly of snow, in lumps or patches, the intervening layers of ice being very thin. Another stone, found in the same neighborhood by Prof. Wadleigh, of Fairmount College, measured 10 inches in circumference. Another large stone, a sort of snaggy oval, found by Mr. H. I. Ellis, of the Ellis Construction Co., living eight blocks north of the station on St. Francis Avenue, measured 7.75 inches in circumference and weighed 4 ounces; it was composed of alternate layers of ice and snow. These large hailstones and those ranging in size from ordinary marbles to 1 inch in diameter were comparatively few. The path of heaviest hail extended from northwest to southeast, outside of the general greenhouse district, and was about 3 miles wide. Comparatively little damage was done.

The thunderstorm appeared to concentrate south and southeast of the city toward nightfall, and distant, rumbling thunder was heard until 10 p. m. Later reports show that heavy rains and washouts occurred at neighboring towns and in the region south and southeast of Wichita.

TABLE 1.—*Climatological data for May, 1912. District No. 7—Continued.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Sky.	Observers.			
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
<i>Louisiana—Continued.</i>																				
New Orleans (2)	Orleans	18	24	76.0	+ 1.1	93	30	51	17	31	11.95	+ 7.86	5.96	0	7	7	11	13	s. e.	Sugar Experiment Station.
Opelousas	St. Landry	83	20	74.6	+ 0.1	94	24†	50	17	35	12.44	+ 7.22	5.62	0	7	16	2	13	e. e.	Andrew Moresi.
Paradis	St. Charles		1								7.17		2.00	0	9					Louisiana Meadows Co.
Pearl River	St. Tammany	29	6								9.36		3.16	0	10	25	2	4	e. e.	George F. Bancks.
Plain Dealing	Bossier	268	20	72.6	+ 0.9	96	25	44	17	37	8.08	+ 3.43	4.93	0	6	18	2	11	se. se.	Leon Sanders.
Rayne	Arcadia	44	20	75.4	+ 0.4	96	9	52	17	30	7.95	+ 3.69	3.10	0	7	16	2	13	s. s.	A. P. McNeil.
Reserve	St. John Baptist	11	77.9	+ 3.1	100	26	56	18†	37	11.95	+ 7.77	3.57	0	7	15	7	9	se. se.	Leon Godchaux Co. (Ltd.).	
Richland Plantation	Rapides			72.9		90	26†	51	17	30	2.74		1.20	0	8	20	4	7	s. s.	A. B. Pendleton.
Robeline	Natchitoches	147	16	72.5	+ 0.4	96	25†	43	17†	41	4.60	- 0.21	2.90	0	4	12	12	7	s. s.	Ruby McCook.
Ruston	Lincoln	312	17																	R. A. Clampet.
St. Francisville	West Feliciana	115	9	73.6		93	28†	51	17†	36	6.45		4.28	0	2	11	14	6	s. s.	L. P. Kilbourne.
Schriever	Terrebonne	17	20	76.7	+ 1.8	97	26	52	17	35	5.66	+ 1.69	0.92	0	10	21	3	7	e. e.	Harriet F. Riviere.
Shreveport	Caddo	249	41	72.8	- 0.4	93	26	53	17	25	5.74	+ 1.58	3.03	0	8	18	5	8	se. se.	U. S. Weather Bureau.
Simmesport	Avoyelles	42	6								7.18		1.97	0	7	9	1	21	se. se.	C. T. Leigh.
Southern University Farm	Jefferson		15								12.40	+ 7.43	4.70	0	9	15	7	9	se. se.	F. L. St. Martin.
Sugartown	Calcasieu	19	74.9	+ 0.9	92	25	51	17	27	4.28	- 0.19	2.36	0	5	10	18	3	G. W. Richardson.	
Tallulah	Madison	91	5									2.37		0.85	0	7				Neal T. Halt.
Walker	Livingston		2	75.4		93	25	49	16	36	11.76		5.28	0	7	18	5	8	ne. ne.	H. C. Fondren.
Winnsboro	Franklin		57																J. C. Carlton.	

*, b, c, etc., indicate respectively 1, 2, 3, etc., days missing from the record.

** Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.

† Also on other dates.

T. Precipitation is less than 0.01 inch rain or melted snow.

